

REMARKS

This Application has been carefully reviewed in light of the Office Action dated December 16, 2008 (the "*Office Action*"). At the time of the *Office Action*, Claims 1-4, 6, and 9-22 were pending and rejected in the Application. Applicants amend Claim 1. Applicants respectfully submit that no new matter is introduced by these amendments. Applicants request reconsideration and favorable action in this case.

Specification Objection

The Examiner objects to the Specification for certain typographical errors. For example, the Examiner objects to and requests correction of the paragraph beginning "Currently, different applications allow users . . ." at Page 2, line 25 of the *Specification* and the paragraph beginning "To overcome the above shortcomings of the prior art macro language. . ." at Page 4, line 8 of the *Specification*. Applicants have amended the *Specification* to address the issues identified by the Examiner. Applicants respectfully request that the objections to the *Specification* be withdrawn.

Section 112 Rejections

The Examiner rejects Claims 1-4, 6, and 9-22 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Specifically, the Examiner states that Claims 1, 3, and 9 recite "a procedure not performed" which is not found in the Specification. Applicants respectfully traverse the rejection of Claims 1, 3, and 9 on this basis.

"The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with the information known in the art without undue experimentation." M.P.E.P. ch. 2164.01 citing *United States v. Teletronics, Inc.*, 857 F.2d 778, 785 (Fed. Cir. 1988). All that is required is that the information contained in the disclosure of an application must be sufficient to inform those skilled in the relevant art how to both make and use the claimed invention. Applicants respectfully submit that the Specification provides sufficient information and detail to enable those skilled in the art to make and use the claimed invention.

Applicants' Specification is replete with discussion of the need for an extensible macro language that allows a user to write "new" macro commands that include "procedures tailored to the specific needs of the users," in accordance with certain embodiments of

Applicants' invention. (See, for example, *Specification*, Page 4, lines 8-19). Applicants' *Specification* states that "[t]he extensible macro language is enabled to process the new macro commands by recognizing the new macro commands unknown to the language and associating the new macro commands with procedure calls stored in a registry." (See, *Specification*, Page 4, lines 13-19). As another example, Applicants' *Specification* states that the present invention "also defines a simplistic syntax for the extended macro language for recognizing the new macro commands for what they are without needing to know what functions they perform." (*Specification*, Page 5, lines 1-4). As still another example, Applicants' *Specification* states that the "macro commands not previously defined or undefined in the macro language refer to those macro commands that were not included in the set of commands available in the macro language at the time of release and distribution to the user." (*Specification*, Page 5, lines 9-13). Thus, Applicants' *Specification* makes clear that **new** macro commands refers to **new procedures** and more specifically to new procedures that were not performed by the original macro language. One of ordinary skill in the art would certainly understand from the description that new macro commands that are not defined in the macro language refer to new procedures that were not performed by the macro commands of the original macro language. Although this is an enablement rejection, Applicants note that to comply with the written description requirement, "[t]he subject matter of the claim need not be described literally (i.e., using the same terms or *in haec verba*) in order for the disclosure to satisfy the description requirement." M.P.E.P. ch. 2163.02. In other words, there is no requirement that the claims use the exact terms as the *Specification*. Applicants respectfully submit that the *Specification* provides sufficient information and detail to clearly convey to those skilled in the art that Applicants had possession of the claimed invention recited in Claims 17-24.

For at least these reasons, Applicants respectfully submit that independent Claims 1, 3, and 9 are enabled in compliance with 35 U.S.C. § 112, first paragraph, and requests reconsideration and allowance of independent Claims 1, 3, and 9.

The Examiner also rejects Claims 9-21 because "Claims 9-21 do not have any mention of "computer readable medium encoded with logic" found in Applicants' *Specification* to perform the steps of Claims 9-21." Applicants respectfully traverse the rejection of Claims 9-21 on this basis.

To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. See, e.g., *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319, 66 USPQ2d 1429, 1438 (Fed. Cir. 2003); *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d at 1563, 19 USPQ2d at 1116. All that is required is that the written description clearly convey the information that an applicant has invented the subject matter which is claimed. Applicants respectfully submit that the *Specification* provides sufficient information and detail to clearly convey to those skilled in the art that Applicants had possession of the claimed invention recited in Claims 9-21.

Applicants' *Specification* is replete with discussion of the electronic nature of certain embodiments of Applicants' invention. Generally, Applicants' *Specification* specifically relates to "computer language processors and, particularly to an extensible macro language." (*Specification*, Page 2, lines 11-13). Specifically, Applicant's *Specification* describes that "word processors typically allow users to create a macro by recording a series of keystrokes to be played back later." (*Specification*, Page 2, lines 28-30). Applicants' *Specification* repeatedly discusses the relationship of "macros" to "source code." (*Specification*, Page 3, lines 8-24; Page 3, line 26 through Page 4, line 4; Page 4, lines 8-19).

Additionally, Applicants' *Specification* describes the electronic components used in the present invention according to certain embodiments. For example, the *Specification* describes a parser 102, a macro handler 110, and a repository 112. (*Specification*, Page 7, line 1 through page 9, line 19; Figure 1). One of ordinary skill in the art would certainly understand from the description that features of embodiments of the invention can be implemented in logic and that logic may be embodied on computer-readable medium. Although Applicants' *Specification* does not state "computer-readable medium", per se, there is no *in haec verba* requirement, newly added claim limitations must be supported in the specification through express, implicit, or inherent disclosure. M.P.E.P. 2163. In other words, there is no requirement that the claims use the exact terms as the *Specification*. At least because Applicants' *Specification* discusses both logic and central processing units, Applicants' *Specification* clearly provides express, implicit, or inherent disclosure of logic encoded on a computer-readable medium. Certainly, Applicants' *Specification* describes in sufficient detail either implicitly or inherently the claim term "computer readable medium

encoded with logic” in such a manner that one skilled in the art would reasonably conclude that Applicants had possession of the claimed invention.

For at least these reasons, Applicants respectfully request that the rejection of Claims 9-21 under 35 U.S.C. § 112, first paragraph be withdrawn.

The Examiner also rejects Claims 1, 3, and 9 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner states that “[i]t is vague, unclear, and indefinite what Applicants’ mean by “a procedure not performed.”” (*Office Action*, page 3). The Examiner asks, “Do Applicants mean the procedure not performed is the macro language not being compiled?” (*Office Action*, page 3).

Applicants respectfully submit that Claims 1, 3, and 9 are not indefinite as previously and currently presented. For example, Claim 1 recites “maintaining a predefined macro language.” Claim 1 further recites that a macro language expression is parsed to identify a new keyword “that is not within the plurality of keywords in the predefined macro language.” Accordingly, “an executable code associated with the new keyword” is retrieved. The executable code that is retrieved and that is associated with the new keyword that was not in the predefined macro language corresponds “to a procedure not performed by the execution of the predefined macro language.” This executable code is then executed without recompiling the macro language and results “in the performance of a procedure not performed by execution of the predefined macro language alone.” Thus, Applicants respectfully submit that the claim clearly recites that a new keyword is identified and an executable code is retrieved. The new keyword is not in the predefined macro language and the execution of code associated with the new keyword results in the performance of a new procedure that was not performed by the predefined macro language. Accordingly, Applicants respectfully submit that Claim 1 is not indefinite. Claims 3 and 9 are not indefinite for analogous reasons.

For at least these reasons, Applicants respectfully submit that independent Claims 1, 3, and 9 are enabled in compliance with 35 U.S.C. § 112, second paragraph, and request reconsideration and allowance of independent Claims 1, 3, and 9, together with the claims depending upon these claims.

Section 101 Rejections

The Examiner rejects Claims 1, 2, 6, 10-13, and 22 under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Specifically, the Examiner states that “in performing the steps of the claimed subject matter, there is no requirement that a machine be used, thus the claims are not considered sufficiently tied to another statutory class.” (*Office Action*, page 4).

In determining whether a process is patent eligible under 35 U.S.C. § 101, the Supreme Court has articulated (and the United States Court of Appeals for the Federal Circuit has recently affirmed) the “machine-or-transformation test.” *Benson*, 409 U.S. at 70; *see also In re Bilski*, No. 08/833,892, 2008 WL 4757110, at *11, (Fed. Cir. October 30, 2008). Under the “machine-or-transformation test” a claim directed to a process is patent eligible if the claim either “is tied to a particular machine” or “transforms an article into a different state or thing.” *See Bilski*, 2008 WL 4757110 at *11 (*citing Benson*, 409 U.S. at 70).

Independent Claim 1, as amended, is directed to a method for providing an extensible macro language” that comprises, *inter alia*, “using a parser to parse a macro language expression to identify a new keyword in the macro language expression that is not within the plurality of keywords in the predefined macro language” and “using a macro processor to execute the executable code retrieved from the registry to run the extended macro command associated with the new keyword in the macro language expression without recompiling the macro language, the executable code associated with the new keyword not included in the predefined macro language and resulting in the performance of a procedure not performed by execution of the predefined macro language alone.” Thus, at least the emphasized language of Claim 1 makes clear that the method recited in Claim 1 is tied to computer hardware. Because a “parser” and “macro processor” are hardware, the method of Claim 1 is “tied to a particular machine.” Therefore, the method recited in Claim 1 constitutes statutory subject matter under 35 U.S.C. § 101 according to the applicable case law.

For at least these reasons, Applicants respectfully submit that independent Claim 1 recites statutory subject matter under 35 U.S.C. § 101 and request reconsideration and allowance of independent Claim 1, together with the Claims 2, 6, 10-13, and 22 that depend upon Claim 1.

Section 103 Rejections

The Examiner rejects Claims 1, 2, and 9 under 35 U.S.C. § 103(a) as being unpatentable over Alexander Sakharov, "Macro Processing in High-Level Languages" ("*Sakharov*") and U.S. Patent No. 4,931,928 issued to Greenfeld ("*Greenfeld*") in view of U.S. Patent No. 5,737,592 issued to Nguyen et al. ("*Nguyen*") and further in view of U.S. Patent No. 5,295,059 issued to Brooks et al. ("*Brooks*"). The Examiner rejects Claims 3, 4, and 6 under 35 U.S.C. § 103(a) as being *Sakharov* and *Greenfeld*, *Nguyen*, in view of *Brooks*, and further in view of Douglas McIlroy, "Macro Instruction Extensions of Compiler Languages" ("*McIlroy*"). For the reasons discussed below, Applicants' respectfully submit that Claims 1-4, 6, 9, and 11-21 are allowable over the Examiner's proposed combinations.

A. Claims 1, 2, and 9 are patentable over the proposed *Sakharov-Greenfeld-Nguyen-Brooks* Combination

Independent Claim 1 of the present Application, as amended, recites:

A method for providing an extensible macro language comprising:
maintaining a predefined macro language comprising a plurality of keywords and a plurality of associated commands for execution;
using a parser to parse a macro language expression to identify a new keyword in the macro language expression that is not within the plurality of keywords in the predefined macro language;
retrieving, from a registry of keywords and associated executable codes, an executable code associated with the new keyword identified in the macro language expression, the executable code corresponding to a procedure not performed by the execution of the predefined macro language; and
using a macro processor to execute the executable code retrieved from the registry to run the extended macro command associated with the new keyword in the macro language expression without recompiling the macro language, the executable code associated with the new keyword not included in the predefined macro language and resulting in the performance of a procedure not performed by execution of the predefined macro language alone.

Applicants submit that the proposed *Sakharov-Greenfeld-Nguyen-Brooks* combination does not disclose, teach, or suggest the particular combination of elements and operations recited in Applicants' Claim 3.

1. **The cited references do not disclose “using a parser to parse a macro language expression to identify a new keyword in the macro language expression that is not within the plurality of keywords in the predefined macro language.”**

As further examples of the deficiencies of the proposed *Sakharov-Greenfeld-Nguyen-Brooks* combination, the cited references do not disclose, teach, or suggest “using a parser to parse a macro language expression to identify a new keyword in the macro language expression that is not within the plurality of keywords in the predefined macro language,” as recited in Claim 1. In the *Office Action*, the Examiner acknowledges that *Sakharov* fails to disclose the recited claim elements and instead relies upon *Greenfeld*. (*Office Action*, page 5). Applicants respectfully disagree.

Greenfeld merely discloses that a parser 42 “takes as input the formal grammar 56 of the target language, and a source code skeleton 60, 62 of each of the programs supporting the lexical scanner 40 and the parser 42.” (*Greenfeld*, Column 8, lines 8-13). “The generator 58 then produces the source code for a lexical scanner and a parser tailored to or customized for the particular target language described by the formal grammar 56. That is, the grammar 56 describes legal sentences in the target language and the parser 42 is generated to exactly analyze those sentences.” (*Greenfeld*, Column 8, lines 13-19). Thus, although *Greenfeld* discloses a parser, the parser of *Greenfeld* merely operates to provide source code analysis to perform error checking. (*Greenfeld*, Column 8, lines 19-38; see also Abstract).

In related disclosure, *Greenfeld* specifically states that “[t]he analysis member operates according to the programming language of the source code as defined by a grammar mechanism.” (*Greenfeld*, Abstract). Accordingly, the parser of *Greenfeld* is limited to the particular target language described in the grammar of the source code. Because the parser is limited to the target language described in the grammar of the source code, *Greenfeld* does not disclose, teach, or suggest “using a parser to parse a macro language expression to identify a new keyword in the macro language expression **that is not within the plurality of keywords in the predefined macro language**,” as recited in Applicants’ Claim 1.

2. **The cited references do not disclose a macro handler operable to “using a macro processor to execute the executable code retrieved from the registry to run the extended macro command associated**

with the new keyword in the macro language expression without recompiling the macro language.”

As another example, Applicants respectfully submit that the cited references do not disclose, teach, or suggest a macro handler operable to “using a macro processor to execute the executable code retrieved from the registry to run the extended macro command associated with the new keyword in the macro language expression without recompiling the macro language,” as recited in Applicants’ Claim 1. In the *Office Action*, the Examiner acknowledges that *Sakharov* fails to disclose the recited claim elements and instead relies upon *Brooks*. (*Office Action*, pages 5-6). Applicants respectfully disagree.

Brooks relates to a “programmable controller 10” that a user programs “via terminal 11 which is a personal computer that executes an editor program for authoring a ladder logic control program.” (*Brooks*, Column 6, lines 36-39). As disclosed in *Brooks*, a user programs the ladder logic control program, and an “editor program then converts the ladder diagram into operation codes (opcodes) and operand addresses which can be executed by the processor module 20.” (*Brooks*, Column 6, lines 39-46). Applicants respectfully submit that the conversion of the ladder diagram into opcodes is, in fact, analogous to compiling the ladder logic control program.

The cited portions of *Brooks* support such a conclusion. For example, *Brooks* discloses that “[w]hen program development software in the terminal 11 translates the ladder diagram into instructions **for execution by the processor module 20**, a unique operation code (opcode) is assigned to each macro instruction name used in the program.” (*Brooks*, Column 8, lines 25-29, emphasis added). Thus, while *Brooks* discloses that a “macro directory 61 is scanned by ladder logic processor 39 to locate the entry for the opcode of the macro instruction” (*Brooks*, Column 9, lines 2-7), the opcode is the product of recompiling or converting the ladder diagram into machine readable code. Accordingly, Applicants respectfully submit that *Brooks* is limited to a system that does, in fact, require the recompiling of the macro language. *Brooks* and, thus, the *Sakharov-Greenfeld-Nguyen-Brooks* combination does not disclose, teach, or suggest “using a macro processor to execute the executable code retrieved from the registry to run the extended macro command associated with the new keyword in the macro language expression **without recompiling the macro language**,” as recited in Applicants’ Claim 1.

3. **The cited references do not disclose “using a macro processor to execute the executable code retrieved from the registry to run the extended macro command associated with the new keyword . . . the executable code associated with the new keyword not included in the predefined macro language and resulting in the performance of a procedure not performed by execution of the predefined macro language alone.”**

As another example, the proposed *Sakharov-Greenfeld-Nguyen-Brooks* combination does not disclose, teach, or suggest a macro handler operable to “using a macro processor to execute the executable code retrieved from the registry to run the extended macro command associated with the new keyword . . . **the executable code associated with the new keyword not included in the predefined macro language and resulting in the performance of a procedure not performed by execution of the predefined macro language alone,**” as recited in Claim 1. In the *Office Action*, the Examiner acknowledges that *Sakharov* fails to disclose the recited claim elements and instead relies upon *Brooks*. (*Office Action*, pages 5-6). Applicants respectfully disagree.

As discussed above, *Brooks* relates to a “programmable controller 10” that a user programs “via terminal 11 which is a personal computer that executes an editor program for authoring a ladder logic control program.” (*Brooks*, Column 6, lines 36-39). As disclosed in *Brooks*, a user programs the ladder logic control program, and an “editor program then converts the ladder diagram into operation codes (opcodes) and operand addresses which can be executed by the processor module 20.” (*Brooks*, Column 6, lines 39-46). Applicants respectfully submit that the conversion of the ladder diagram into opcodes is, in fact, analogous to compiling the ladder logic control program and, thus, the ladder logic control program and opcodes are, in fact, procedures performed by execution of the predefined macro language alone.

For example, *Brooks* discloses that “[w]hen program development software in the terminal 11 translates the ladder diagram into instructions for execution by the processor module 20, a unique operation code (opcode) is assigned to each macro instruction name used in the program.” (*Brooks*, Column 8, lines 25-29). The cited portion indicates that at the time the application is created (i.e., when the macro commands are written by the user and converted into opcodes), the application includes all possible macros and then assigns opcodes to them. Were a new macro command discovered, there would be no associated

opcode assigned to it and, thus, no way to run the macro command. Accordingly, Applicants respectfully submit that *Brooks* is limited to the procedures performed by the predefined macro language. *Brooks* and, thus, the *Sakharov-Greenfeld-Nguyen-Brooks* combination does not disclose, teach, or suggest “using a macro processor to execute the executable code retrieved from the registry to run the extended macro command associated with the new keyword . . . **the executable code associated with the new keyword not included in the predefined macro language and resulting in the performance of a procedure not performed by execution of the predefined macro language alone,**” as recited in Claim 1.

4. **The cited references do not disclose “retrieving, from a registry of keywords and associated executable codes, an executable code associated with the new keyword identified in the macro language expression, the executable code corresponding to a procedure not performed by the execution of the predefined macro language.”**

As further examples of the deficiencies of the proposed *Sakharov-Greenfeld-Nguyen-Brooks* combination, the cited references do not disclose, teach, or suggest “retrieving, from a registry of keywords and associated executable codes, an executable code associated with the new keyword identified in the macro language expression, the executable code corresponding to a procedure not performed by the execution of the predefined macro language,” as recited in Claim 1. In the *Office Action*, the Examiner acknowledges that *Sakharov* fails to disclose the recited claim elements and instead relies upon *Nguyen*. (*Office Action*, page 5). Applicants respectfully disagree.

Nguyen merely discloses that a “macro language contains directives, which are reserved keywords with a prefix symbol “%” (e.g., % SQL). (*Nguyen*, Column 6, lines 7-8). Thus, *Nguyen* relates to a predefined macro language that includes directives. Because *Nguyen* specifies that the macro language is comprised of “reserved keywords,” *Nguyen* does not at all relate to “a registry of keywords and associated executable codes . . . **corresponding to a procedure not performed by the execution of the predefined macro language,**” as recited in Claim 1.

In the *Office Action*, the Examiner also states:

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a registry of keywords and an

associated executable code to retrieve and to execute because it is well known in the art that the C language itself has a registry of 33 keywords with the keywords being used in the source code and compiling of the macro language

(*Office Action*, pages 6-7). However, whether or not it is well known in the art that the C language has a registry of 33 keywords, the Examiner's own statement identifies that the 33 keywords of the C language are "used in the source code." Maintaining a registry of keywords that are used in a piece of source code is counter to Applicants' claim language. Applicants' claim specifically requires that "an executable code associated with the new keyword identified in the macro language expression" and specifies that the new keyword "is not within the plurality of keywords in the predefined macro language" and that "the executable code correspond[s] to a procedure not performed by the execution of the predefined macro language." To the extent that the C language has a registry of 33 keywords (which Applicants neither admit nor deny), if such keywords are used in the source code itself, then such keywords are not analogous to Applicants' claimed "keywords." Accordingly, even in view of the registry of C language key words, it would not have been obvious to one of ordinary skill in the art to modify the teachings of *McIlroy* to include "retrieving, from a registry of keywords and associated executable codes, an executable code associated with the new keyword identified in the macro language expression, the executable code corresponding to a procedure not performed by the execution of the predefined macro language," as recited in Applicants' Claim 1.

5. Conclusion

For at least the reasons discussed above, Applicants respectfully request reconsideration and allowance of independent Claim 1, together with Claim 2 that depends from Claim 1. For analogous reasons, Applicants also request reconsideration and allowance of independent Claim 9.

B. Claims 3, 4, 6, and 10-22 are patentable over the proposed *Sakharov-Greenfeld-Nguyen-Brooks-McIlroy* Combination

In response to the Examiner's rejection of Claims 3, 4, 6, and 10-22 under the proposed *Sakharov-Greenfeld-Nguyen-Brooks-McIlroy* combination, Applicants submit that

the references, whether considered alone or together, do not disclose, teach, or suggest the combination of elements recited in Applicants' Claims 3, 4, 6, and 10-22.

For example, independent Claim 3 of the present Application recites:

A system for providing an extensible macro language, comprising:
a macro handler operable to maintain a predefined macro language comprising a plurality of keywords and a plurality of associated commands for execution;

a parser operable to parse a macro language expression to identify a new keyword in the macro language expression that is not within the plurality of keywords in the predefined macro language;

a registry of keywords and associated executable codes, including one or more keywords and one or more executable codes that are not included in the predefined macro language, each keyword being associated with a respective one of the executable codes, each executable code corresponding to a procedure not performed by the execution of the predefined macro language; and

wherein the macro handler is further operable to receive the new keyword from the parser, retrieve, from the registry of keywords and associated executable codes, the executable code associated with the new keyword identified within the macro language expression, and execute the retrieved executable code to run the extended macro command associated with the new keyword without recompiling the macro language, the executable code associated with the new keyword not included in the predefined macro language and resulting in the performance of a procedure not performed by execution of the predefined macro language alone.

Applicants submit that the proposed *Sakharov-Greenfeld-Nguyen-Brooks-McIlroy* combination does not disclose, teach, or suggest the particular combination of elements and operations recited in Applicants' Claim 3.

1. *Sakharov* is not relied upon to reject Claim 3.

Initially, Applicants note that although the Examiner states that Claim 3 is rejected over *Sakharov* in view of *Brooks*, *Greenfeld*, *McIlroy*, and *Nguyen*, the Examiner identifies no elements of Claim 3 as actually being disclosed by *Sakharov*. Rather, the Examiner explicitly identifies each claim element recited in Claim 3 as **not** being disclosed in *Sakharov*. Because *Sakharov* is not relied upon to reject any claim element of Claim 3, Applicants have not addressed *Sakharov* below. However, Claim 3 recites certain claim

elements that are similar to those discussed above with regard to Claim 1. Accordingly, Applicants submit that *Sakharov* is deficient with regard to Applicants' claim elements for reasons similar to those discussed above with regard to Claim 1.

2. The cited references do not disclose “a parser operable to parse a macro language expression to identify a new keyword in the macro language expression that is not within the plurality of keywords in the predefined macro language.”

As further examples of the deficiencies of the proposed *Sakharov-Brooks-Greenfeld-McIlroy-Nguyen* combination, the cited references do not disclose, teach, or suggest “a parser operable to parse a macro language expression to identify a new keyword in the macro language expression that is not within the plurality of keywords in the predefined macro language,” as recited in Claim 3. In the *Office Action*, the Examiner acknowledges that *Sakharov* fails to disclose the recited claim elements and instead relies upon *Greenfeld*. (*Office Action*, pages 8-9). Applicants respectfully disagree.

Greenfeld merely disclose that a parser 42 “takes as input the formal grammar 56 of the target language, and a source code skeleton 60, 62 of each of the programs supporting the lexical scanner 40 and the parser 42.” (*Greenfeld*, Column 8, lines 8-13). “The generator 58 then produces the source code for a lexical scanner and a parser tailored to or customized for the particular target language described by the formal grammar 56. That is, the grammar 56 describes legal sentences in the target language and the parser 42 is generated to exactly analyze those sentences.” (*Greenfeld*, Column 8, lines 13-19). Thus, although *Greenfeld* discloses a parser, the parser of *Greenfeld* merely operates to provide source code analysis to perform error checking. (*Greenfeld*, Column 8, lines 19-38; see also Abstract). In related disclosure, *Greenfeld* specifically states that “[t]he analysis member operates according to the programming language of the source code as defined by a grammar mechanism.” (*Greenfeld*, Abstract). Accordingly, the parser of *Greenfeld* is limited to the particular target language described in the grammar of the source code. Because the parser is limited to the target language described in the grammar of the source code, *Greenfeld* does not disclose, teach, or suggest “identify a new keyword in the macro language expression **that is not within the plurality of keywords in the predefined macro language**,” as recited in Applicants' Claim 3.

3. **The cited references do not disclose a macro handler operable to “execute the retrieved executable code to run the extended macro command associated with the new keyword without recompiling the macro language.”**

As another example, Applicants respectfully submit that the cited references do not disclose, teach, or suggest a macro handler operable to “execute the retrieved executable code to run the extended macro command associated with the new keyword without recompiling the macro language,” as recited in Applicants’ Claim 3. In the *Office Action*, the Examiner acknowledges that *Sakharov* fails to disclose the recited claim elements and instead relies upon *Brooks* for disclosure of a macro handler and upon *Nguyen* for disclosure of executing the code to run the extended macro command “without recompiling the macro language.” (*Office Action*, pages 8-10). Applicants respectfully disagree.

Brooks relates to a “programmable controller 10” that a user programs “via terminal 11 which is a personal computer that executes an editor program for authoring a ladder logic control program.” (*Brooks*, Column 6, lines 36-39). As disclosed in *Brooks*, a user programs the ladder logic control program, and an “editor program then converts the ladder diagram into operation codes (opcodes) and operand addresses which can be executed by the processor module 20.” (*Brooks*, Column 6, lines 39-46). Applicants respectfully submit that the conversion of the ladder diagram into opcodes is, in fact, analogous to compiling the ladder logic control program. The cited portions of *Brooks* support such a conclusion. For example, *Brooks* discloses that “[w]hen program development software in the terminal 11 translates the ladder diagram into instructions **for execution by the processor module 20**, a unique operation code (opcode) is assigned to each macro instruction name used in the program.” (*Brooks*, Column 8, lines 25-29, emphasis added). Thus, while *Brooks* discloses that a “macro directory 61 is scanned by ladder logic processor 39 to locate the entry for the opcode of the macro instruction” (*Brooks*, Column 9, lines 2-7), the opcode is the product of recompiling or converting the ladder diagram into machine readable code. Accordingly, Applicants respectfully submit that *Brooks* is limited to a system that does require the recompiling of the macro language. *Brooks* does not disclose, teach, or suggest a macro handler operable to “execute the retrieved executable code to run the extended macro

command associated with the new keyword **without recompiling the macro language**,” as recited in Applicants’ Claim 3.

Nguyen does not cure the deficiencies of *Sakharov* and *Brooks*. *Nguyen* merely discloses that a “macro language contains directives, which are reserved keywords with a prefix symbol “%” (e.g., % SQL). (*Nguyen*, Column 6, lines 7-8). Thus, *Nguyen* relates to a predefined macro language that includes directives. Because *Nguyen* specifies that the macro language is comprised of “reserved keywords,” the keywords are, in fact, predefined prior to compile time. As such, *Nguyen* also does not disclose, teach, or suggest a macro handler operable to “execute the retrieved executable code to run the extended macro command associated with the new keyword **without recompiling the macro language**,” as recited in Applicants’ Claim 3.

4. **The cited references do not disclose a macro handler operable to “execute the retrieved executable code to run the extended macro command associated with the new keyword . . . the executable code associated with the new keyword not included in the predefined macro language and resulting in the performance of a procedure not performed by execution of the predefined macro language alone.”**

As another example, the proposed *Sakharov-Brooks-Greenfeld-McIlroy-Nguyen* combination does not disclose, teach, or suggest a macro handler operable to “execute the retrieved executable code to run the extended macro command associated with the new keyword . . . **the executable code associated with the new keyword not included in the predefined macro language and resulting in the performance of a procedure not performed by execution of the predefined macro language alone**,” as recited in Claim 3. In the *Office Action*, the Examiner acknowledges that *Sakharov* fails to disclose the recited claim elements and instead appears to rely upon either of *Brooks* or *Nguyen* for disclosure of the recited claim elements. (*Office Action*, pages 8-10).

As discussed above, *Brooks* relates to a “programmable controller 10” that a user programs “via terminal 11 which is a personal computer that executes an editor program for authoring a ladder logic control program.” (*Brooks*, Column 6, lines 36-39). As disclosed in *Brooks*, a user programs the ladder logic control program, and an “editor program then converts the ladder diagram into operation codes (opcodes) and operand addresses which can

be executed by the processor module 20.” (*Brooks*, Column 6, lines 39-46). Applicants respectfully submit that the conversion of the ladder diagram into opcodes is, in fact, analogous to compiling the ladder logic control program and, thus, the ladder logic control program and opcodes are, in fact, procedures performed by execution of the predefined macro language alone. For example, *Brooks* discloses that “[w]hen program development software in the terminal 11 translates the ladder diagram into instructions for execution by the processor module 20, a unique operation code (opcode) is assigned to each macro instruction name used in the program.” (*Brooks*, Column 8, lines 25-29). The cited portion indicates that at the time the application is created (i.e., when the macro commands are written by the user and converted into opcodes), the application includes all possible macros and then assigns opcodes to them. Were a new macro command discovered, there would be no associated opcode assigned to it and, thus, no way to run the macro command. Accordingly, Applicants respectfully submit that *Brooks* is limited to the procedures performed by the predefined macro language. *Brooks* and, thus, the *Sakharov-Brooks-Greenfeld-McIlroy-Nguyen* combination does not disclose, teach, or suggest a macro handler operable to “execute the retrieved executable code to run the extended macro command associated with the new keyword . . . **the executable code associated with the new keyword not included in the predefined macro language and resulting in the performance of a procedure not performed by execution of the predefined macro language alone,**” as recited in Applicants’ Claim 3.

Nguyen does not cure the deficiencies of *Sakharov* and *Brooks*. *Nguyen* merely discloses that a “macro language contains directives, which are reserved keywords with a prefix symbol “%” (e.g., % SQL). (*Nguyen*, Column 6, lines 7-8). Thus, *Nguyen* relates to a predefined macro language that includes directives. Because *Nguyen* specifies that the macro language is comprised of “reserved keywords,” the keywords are, in fact, predefined prior to compile time. As such, *Nguyen* also does not disclose, teach, or suggest “a macro handler operable to “execute the retrieved executable code to run the extended macro command associated with the new keyword . . . **the executable code associated with the new keyword not included in the predefined macro language and resulting in the performance of a procedure not performed by execution of the predefined macro language alone,**” as recited in Applicants’ Claim 3.

5. **The cited references do not disclose “a registry of keywords and associated executable codes that are not included in the predefined macro language . . . each executable code corresponding to a procedure not performed by the execution of the predefined macro language.”**

As further examples of the deficiencies of the proposed *Sakharov-Brooks-Greenfeld-McIlroy-Nguyen* combination, the cited references do not disclose, teach, or suggest “a registry of keywords and associated executable codes that are not included in the predefined macro language . . . each executable code corresponding to a procedure not performed by the execution of the predefined macro language,” as recited in Claim 3. In the *Office Action*, Examiner acknowledges that *Sakharov* fails to disclose the recited claim elements and instead relies upon *Nguyen*. (*Office Action*, pages 9-10). Applicants respectfully disagree.

Nguyen merely discloses that a “macro language contains directives, which are reserved keywords with a prefix symbol “%” (e.g., % SQL). (*Nguyen*, Column 6, lines 7-8). Thus, *Nguyen* relates to a predefined macro language that includes directives. Thus, to the extent that *Nguyen* discloses a registry of keywords, *Nguyen* specifies that the macro language is comprised of “reserved keywords.” *Nguyen* does not at all relate to a registry of keywords “a registry of keywords and associated executable codes **that are not included in the predefined macro language**,” as recited in Claim 3. Additionally, there is no disclosure in *Nguyen* that “each executable code corresponding to a procedure not performed by the execution of the predefined macro language,” as recited in Claim 3.

6. **Conclusion**

For at least the reasons discussed above, Applicants respectfully request reconsideration and allowance of Claim 3, together with Claims 4, 6, and 14-17 that depend on Claim 3.

Claims 10-13 and 18-22 depend on Claims 1 and 9, respectively. Accordingly, dependent Claims 10-13 and 18-22 are not obvious over the proposed *Sakharov-Brooks-Greenfeld-McIlroy-Nguyen* combination at least because Claims 10-13 and 18-22 include the limitations of their respective independent claims, which Applicants have shown above to be

allowable. Since Claims 10-13 and 18-22 incorporate the limitations of their respective independent claims, Applicants have not provided detailed arguments with respect to Claims 10-13 and 18-22. However, Applicants remain ready to do so if it becomes appropriate. Applicants respectfully request reconsideration and allowance of Claims 10-13 and 18-22.

C. The Proposed *Sakharov-Greenfeld-Nguyen-Brooks* and *Sakharov-Brooks-Greenfeld-McIlroy-Nguyen* Combinations are Improper as Applied to Applicants' Claims.

Furthermore, Applicants continue to submit that the Examiner has not provided the requisite teaching, suggestion, or motivation, either in the cited references or in the knowledge generally available to one of ordinary skill in the art at the time of Applicant's invention to modify or combine the cited references. The proposed *Sakharov-Greenfeld-Nguyen-Brooks* and *Sakharov-Brooks-Greenfeld-McIlroy-Nguyen* combinations are improper for at least these reasons.

1. The Legal Standard

The question raised under 35 U.S.C. § 103 is whether the prior art taken as a whole would suggest the claimed invention taken as a whole to one of ordinary skill in the art at the time of the invention. Accordingly, even if all elements of a claim are disclosed in various prior art references, which is certainly not the case here as discussed above, the claimed invention taken as a whole cannot be said to be obvious without some reason given in the prior art why one of ordinary skill at the time of the invention would have been prompted to modify the teachings of a reference or combine the teachings of multiple references to arrive at the claimed invention. It is clear based at least on the many distinctions discussed above that the proposed *Sakharov-Greenfeld-Nguyen-Brooks* and *Sakharov-Brooks-Greenfeld-McIlroy-Nguyen* combinations do not, taken as a whole, suggest the claimed invention, taken as a whole. Applicants respectfully submit that the Examiner has merely pieced together disjointed portions of references, with the benefit of hindsight using Applicants' claims as a blueprint, in an attempt to reconstruct Applicants' claims.

The controlling case law, rules, and guidelines repeatedly warn against using an applicant's disclosure as a blueprint to reconstruct the claimed invention. For example, the M.P.E.P. states, "The tendency to resort to 'hindsight' based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However,

impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.” M.P.E.P. § 2142.

The U.S. Supreme Court’s recent decision in *KSR Int’l Co. v. Teleflex, Inc.* reiterated the requirement that Examiners provide an explanation as to why the claimed invention would have been obvious. *KSR Int’l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727 (2007). The analysis regarding an apparent reason to combine the known elements in the fashion claimed in the patent at issue “should be made explicit.” *KSR*, 127 S.Ct. at 1740-41. “Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.* at 1741 (internal quotations omitted).

The new examination guidelines issued by the United States Patent and Trademark Office (“PTO”) in response to the *KSR* decision further emphasize the importance of an explicit, articulated reason why the claimed invention is obvious. Those guidelines state, in part, that “[t]he key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit.” *Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in KSR International Co. v. Teleflex Inc.*, 72 Fed. Reg. 57526, 57528-29 (Oct. 10, 2007) (internal citations omitted). The guidelines further describe a number of rationales that, in the PTO’s view, can support a finding of obviousness. *Id.* at 57529-34. The guidelines set forth a number of particular findings of fact that must be made and explained by the Examiner to support a finding of obviousness based on one of those rationales. *See id.*

2. The Analysis

To maintain the rejections of each of Applicants’ claims the Examiner cites disjointed portions of four and, at times, five unrelated references. For example, with respect to independent Claim 1, the Examiner relies upon a different reference for disclosure of each recited step of Applicants’ method claim. As another example, with respect to independent Claim 3, the Examiner acknowledges that *Sakharov* fails to disclose each element of the claimed invention but relies upon *Brooks* for disclosure of a “macro handler” operable to perform certain claimed operations, *Greenfeld* for disclosure of “a parser” operable to

perform certain claimed operations, and *Nguyen* for disclosure of “a registry of keywords and associated executable codes.” Applicants respectfully submit that the Examiner’s attempt to modify or combine *Sakharov* with *Greenfeld*, *Nguyen*, *Brooks*, and *McIlroy*, appears to constitute the type of impermissible hindsight reconstruction of Applicants’ claims, using Applicants’ claims as a blueprint, that is specifically prohibited by the M.P.E.P. and governing Federal Circuit cases.¹ Applicants respectfully submit that the Examiner’s reliance on disjointed portions of five unrelated references evidences such use of hindsight to reconstruct Applicants’ claims.

The mere fact that four, and in some instances five, references must be combined to disclose the claim elements disclosed in a single one of Applicants’ claims provides evidence that the overall combination of claim elements claimed by Applicants would not have been obvious to one of ordinary skill in the art at the time of Applicants’ invention. Even if *Greenfeld* discloses “a parser” operable to perform Applicants’ claimed operations (which Applicants do not admit and expressly disputes above), *Nguyen* discloses a “registry of keywords and associated executable codes” (which Applicants do not admit and expressly disputes above), *McIlroy* discloses recognizing one or more tokens in the macro language expression, and *Brooks* discloses “a macro handler” operable to perform Applicants’ claimed operations (which Applicants do not admit and expressly disputes above), such a piecemeal rejection of Applicants’ claims fail to give credence to each element of Applicants’ claims and to the overall combination of features recited in the claims. For these reasons, Applicants submit that a rejection of Claims 1-4, 6, and 9-22 under the proposed *Sakharov-Greenfeld-Nguyen-Brooks* and *Sakharov-Brooks-Greenfeld-McIlroy-Nguyen* combinations, in the manner provided by the Examiner, are improper and can only result from the piecing together of disjointed portions of unrelated references to reconstruct Applicants’ claims.

Furthermore, Applicants note that in the *Office Action* the Examiner identifies no suggestion or motivation for modifying the teachings of *Sakharov* to include the disclosure of *Greenfeld*. Similarly, the Examiner identifies no suggestion or motivation for modifying the teachings of *Sakharov* to include the disclosures of *Nguyen*. The only motivation for the proposed combinations that is identified by the Examiner relates to a purported motivation

¹ It is improper for an Examiner to use hindsight having read the Applicant’s disclosure to arrive at an obviousness rejection. *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). It is improper to use the claimed invention as an instruction manual or template to piece together the teachings of the prior art so that the claimed invention is rendered obvious. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992).

for combining the disclosure of *Sakharov* with the disclosure of *Brooks*. The Examiner provides no suggestion or motivation for modifying the teachings of *Sakharov* to include the disclosures of *Greenfeld*, *Nguyen*, and *McIlroy*. Stated differently, the Examiner has provided no evidence of motivation or suggestion that could support a conclusion that one of ordinary skill in the art at the time of Applicants' invention would have been motivated to modify the disclosure of *Sakharov* to include the cited disclosures of *Greenfeld*, *Nguyen*, and *McIlroy*.² In other words, the alleged advantage of the system proposed by the Examiner does not provide an explanation as to: (1) why it would have been obvious to one of ordinary skill in the art at the time of Applicants' invention (*without using Applicants' claims as a guide*) to modify the particular techniques disclosed in *Sakharov* with the cited disclosures in *Greenfeld*, *Nguyen*, and *McIlroy*; (2) how one of ordinary skill in the art at the time of Applicants' invention would have actually done so; and (3) how doing so would purportedly meet the limitations of Applicants' independent claims. Applicants respectfully submit that the proposed *Sakharov-Greenfeld-Nguyen-Brooks* and *Sakharov-Brooks-Greenfeld-McIlroy-Nguyen* combinations are deficient on its face for at least these reasons.

With regard to the additional disclosure of *Brooks*, the Examiner states:

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify in *Sakharov* the teachings of *Brooks* because such a modification is well known in the art and would enhance *Sakharov's* extended keywords with the parser receiving the keyword first, then parsing the expression and the macro handler in response saving the previous contents of the processor registers (keywords) during execution of the main program with the user selecting the functions and submitting the macro command to run the code associated with the keywords with a prefix symbol.

(*Office Action*, page 10). Thus, again, the Examiner has not pointed to any portions of the cited references that would teach, suggest, or motivate one of ordinary skill in the art at the time of invention to incorporate the disclosure of *Sakharov* with the cited disclosure of

² To the extent that the Examiner continues to rely on "common knowledge" or "well known" art in support of his rationale for combining the references, the Examiner is requested to produce a reference in support of his position pursuant to M.P.E.P. § 2144.03. If the Examiner is relying on personal knowledge to supply the required motivation or suggestion to combine, Applicants respectfully request that the Examiner produce an affidavit supporting such facts pursuant to M.P.E.P. § 2144.03.

Brooks.³ The Examiner's speculation that such a modification "is well known in the art" does not meet the standard required for an obvious combination of references. The Examiner's bald assertion that it is well known in the art and the Examiner's assertion that such a modification would enhance *Sakharov*'s extended words does not provide an explanation as to: (1) why it would have been obvious to one of ordinary skill in the art at the time of Applicants' invention (*without using Applicants' claims as a guide*) to modify the particular techniques disclosed in *Sakharov* with the cited disclosure in *Brooks*; (2) how one of ordinary skill in the art at the time of Applicants' invention would have actually done so; and (3) how doing so would purportedly meet the limitations of Applicants' independent claims. Indeed, if it were sufficient for Examiners to merely point to an advantage purported to be "well known in the art" and conclude that it would have been obvious to combine of modify that reference with other references simply based on that advantage (which, as should be evident from the case law discussed above, it certainly is not), then virtually any two or more references would be combinable. Of course, as the Federal Circuit has made clear and as discussed above, that is not the law.

For at least these reasons, Applicants respectfully request reconsideration and allowance of Claims 3, 4, 6, and 10-21.

Failure to Establish Prima Facie Rejection

Applicants submit that the above indicated errors in failing to establish a *prima facie* case are clear errors of law as defined by the Official Gazette Notice of July 12, 2005, establishing the procedure for the Pre-Appeal Brief Request for Review, and if maintained, would clearly be overturned by a Pre-Appeal Panel.

³ To the extent that the Examiner continues to rely on "common knowledge" or "well known" art in support of his rationale for combining the references, the Examiner is requested to produce a reference in support of his position pursuant to M.P.E.P. § 2144.03. If the Examiner is relying on personal knowledge to supply the required motivation or suggestion to combine, Applicants respectfully request that the Examiner produce an affidavit supporting such facts pursuant to M.P.E.P. § 2144.03.

No Waiver

Additionally, Applicants have merely discussed example distinctions from the references cited by the Examiner. Other distinctions may exist, and Applicants reserve the right to discuss these additional distinctions in a later Response or on Appeal, if appropriate. By not responding to additional statements made by the Examiner, Applicants do not acquiesce to the Examiner's additional statements. The example distinctions discussed by Applicants are sufficient to overcome the Examiner's rejections.

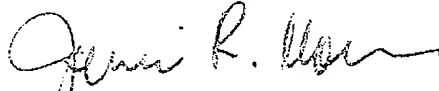
CONCLUSION

Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other apparent reasons, Applicants respectfully request full allowance of all pending Claims.

If the Examiner feels that a telephone conference would advance prosecution of this Application in any manner, the undersigned attorney for Applicants stands ready to conduct such a conference at the convenience of the Examiner.

Applicants believe no fee is due. However, should there be a fee discrepancy, the Commissioner is hereby authorized to charge any required fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,
BAKER BOTTS L.L.P.
Attorneys for Applicants



Jenni R. Moen
Reg. No. 52,038
Phone: (214) 415-4820

Date: March 16, 2009

CORRESPONDENCE ADDRESS:

at Customer Number: **05073**